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SUBJECT GROUP 11300-11399 UTILITIES AND SERVICES

SUBGROUP 11320 - FIRE PROTECTION AND FIRE FIGHTING

11320.1 General Information. Fire protection and prevention regulations follow for the combined areas of the Navy Regional Fire-Rescue Hampton Roads and policies, practices, and regulations shall be in accordance with DODINST 6055.6.

a. The provisions of this article apply to all areas, buildings, structures, aircraft, and ships undergoing availabilities within the geographic limits of NAVSTA Norfolk; FCTCLANT, Dam Neck; NAVPHIBASE Little Creek; NAVSHIPYD Norfolk, Portsmouth; NAS Oceana; WPNSTA Yorktown; and surrounding installations, and areas under their jurisdictions.

b. This article shall not be construed as amending or altering any regulation, instruction, or directive promulgated by higher authority. If conflicts arise between the listed references the more stringent shall apply.

c. Program Manager for the Navy Regional Fire-Rescue Hampton Roads is NAVPHIBASE Little Creek and as such is the authority having jurisdiction for the implementation of the regional fire protection/prevention requirements.

11320.2 Firefighting/Rescue/Hazardous Materials Response

a. The Navy Regional Fire-Rescue Operations division is a well-trained, experienced group of firefighters who specialize in combating shipboard, structural, aircraft, weapons, and special hazard fires. Firefighters and equipment will arrive within a few minutes of receipt of a fire alarm. On arrival the Senior Fire Department Officer will establish an Incident Command Post and work in coordination with commanding officers or their designees to bring the emergency situation under control. The Incident Commander will assist and make recommendations to the senior military officer on scene for control of fire or rescue related emergencies. The Incident Commander will retain direct supervision of his own personnel, apparatus, and equipment.

b. All Navy Regional Fire-Rescue fire sites are capable of performing light to medium rescue operations. In the case that specialized/heavy rescue is required and upon request the Navy Regional Technical Rescue Response Unit will be dispatched from NAVSTA Norfolk. This specialized unit is highly trained in advanced High Angle Rope Rescue, Trench/Excavation Rescue, structural collapse, heavy vehicle extrication and Confined Space Rescue. It is part of the Tidewater Regional Technical Rescue Team Mutual Aid Response program, which is supported by all local surrounding communities.

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All Navy Regional Fire-Rescue Fire Sites have the capability to respond to hazardous materials incidents in a defensive posture. Two Navy Regional Fire-Rescue Sites, NAVSTA Norfolk and NAVSHIPYD Norfolk, have the capability to mitigate hazardous materials incidents in the offensive posture dealing with Class IV incidents. Current capability for hazardous materials response is available by contacting each installation Fire Site Manager.

11320.3 General Fire Safety Requirements

a. Fire Inspections. Qualified personnel shall perform Inspection/Fire Risk Management Surveys. Frequencies of these surveys will be site specific and established by each installation Fire Site Manager, determined after completion of local fire risk surveys, which will reveal occupancy hazards, fire loading, and mission function. The following minimum requirements apply:

- (1) Weekly: Site inspections of major construction or renovation projects.
- (2) Monthly: Clubs, places of public assembly, educational non-adult, extra hazardous operations, hospitals, and day-care centers.
- (3) Bimonthly: Mercantile and recreation areas.
- (4) Quarterly: Industrial, transportation, maintenance, flammable gas and liquid facilities, dormitories, automated data processing, and communication equipment areas.
- (5) Semi annual: Administration areas, business, adult schools, storage, and mobile facilities.
- (6) Annual: Utility pump stations, special structures, family housing units.

b. Fire Lanes. Fire lanes will be provided for all buildings that are set back more than 150 feet from public road, or exceed 30 feet in height and are set back over 50 feet from a public road. Fire lanes will be not less than 20 feet of unobstructed width, able to withstand live loads of fire apparatus and have a minimum of 13 feet 6 inches of vertical clearance. An approved turnaround for fire apparatus will be provided where an access road is a dead end and is in excess of 150 feet in length. The turnaround will have a minimum centerline radius of 50 feet. Fire lanes will be maintained free of obstructions at all times. Suitable gates, access roads and/or bridges will be maintained to all facilities to ensure fire department access in case of fire. Parking of motor vehicles or obstructing fire lanes is prohibited.

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c. Parking/Egress Paths. Parking will not be permitted near buildings that would prevent or obstruct egress from exits. Parking will not be permitted within 15 feet of fire hydrants, including underground fire hydrants. Parking will not be permitted within three feet of Fire Alarm boxes or sprinkler system post indicator valves. A 15-foot access clearance will be provided to all fire department sprinkler and standpipe systems.

d. Smoking Restrictions. Smoking will not be permitted in any of the following locations:

- (1) Explosive areas
- (2) On any pier
- (3) Barges and lighters loaded with flammable or combustible liquids or materials, in or near cargo holds of ships, on loading ramps, in railroad cars, in beds of trucks or trailers while loading or unloading combustible materials.
- (4) Within 500 feet of any ship engaged in explosive ordnance operations or in any hazardous refueling area.
- (5) In all areas where chemicals or highly combustible materials are stored or handled
- (6) In any other area considered a fire hazard by the Installation Site Manager.
- (7) Within fifty feet of:
 - (a) Gasoline dispensing operations.
 - (b) Where bituminous and plastic coatings are being applied
 - (c) Flammable/combustible liquid handling or storage areas
 - (d) Aircraft parking or aircraft hangar areas

11320.4 Hazardous Processes

a. General. All hot work operations will be inspected and a written permit will be issued by the installation Site Fire Prevention Office prior to the start of any hot work operations. Hot work may be obtained by calling the installation Fire Prevention Office or Emergency Dispatch Communication Center. Hot work permits will be valid for a period not to exceed 12 hours. (Exception: Circumstances may require a hot work operation to extend beyond 12 hours. At the discretion of the installation Fire Site Manager, a hot work permit

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may be issued for a period exceeding 12 hours. However, in no case will a hot work permit be valid in excess of 24 hours.)

b. Hot Work. Hot work is defined as any work involving general heating by a means at or above 400 degrees Fahrenheit. This includes welding, flame cutting use of open flame equipment, and tar kettle operations. In addition, grinding, abrasive blasting, drilling, or any cold work involving the probability of striking sparks will be considered hot work.

c. Required Permit. A Hot Work Permit will be required for the following:

(1) On all piers, or on ships or other areas, where molten slag or sparks may fall on piers or in adjacent water near the piers.

(2) Adjacent to, or in proximity of flammable or combustible liquid storage areas, containers, or other operations involving flammable or combustible liquids.

(3) In areas that present the possibility of hampered exit of personnel performing hot work, or any other operation which presents unusual, special, or questionable circumstances.

(4) Aircraft or aircraft engines, aircraft ground support equipment, or fuel/oil tanks. In addition, hot work performed aboard aircraft will require an Aircraft Welding Fire Safety Checklist to be issued.

(5) In a non-emergency status the command Occupational Safety and Health Act (OSHA) office has the responsibility to recognize and identify confined spaces. Once a space has been determined to be a confined space, and upon receipt of a gas free certification, the Fire Prevention Office will issue a Hot Work Permit in accordance with this instruction.

d. Hot work exceptions. Hot work permits are not required to be issued by the Fire Department/Fire Prevention Office and may be self issued in areas that are specifically designed or designated for burning, welding, and are approved in writing by the Site Fire Department/Fire Prevention Office. This approval shall be in the form of a Hazardous Operation/Process Designated Site Authorization Permit.

For detailed information pertaining to permit requirements, contact the Installation Fire Site Manager or Fire Prevention Office. Further detailed information on hazardous processes is outlined in established fire plans. A copy may be obtained through the installation Fire Department/Fire Prevention office.

11320.5 Waterfront Fire Regulations

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a. General. Ships berthed at piers will be responsible for fire prevention, storage and handling of materials, and proper cleanliness alongside their berths. Open fires or incinerators on piers are prohibited. Both ship officers and shore supervisors shall ensure that effective fire prevention measures be observed during any dockside operations.

b. Actions in Case of Fire

(1) Fire on any ship at any of the piers in Hampton Roads will be reported to the Installation Fire Department via fire dispatch offices, fire alarm boxes, and/or telephone. Under no circumstances will such notification be delayed based on a belief that the fire is trivial or already extinguished.

(2) In the event of a fire on one of the piers or aboard a ship at one of the piers, any ships in close proximity to the fire will prepare to move away from the pier.

(3) Upon arrival on the scene of any ship involved with fire, the Senior Fire Department Officer or representative from the installation Fire Department will report to the ship's Command Duty Officer (CDO) to ascertain if shore based fire fighting assistance is needed or required.

(a) If assistance is requested, fire-fighting efforts will be coordinated between the ship's commanding officer or his designee and the Senior Fire Department Officer.

(b) If the Fire Department is requested to stand by, the Senior Fire Department Officer will determine the fire fighting equipment necessary to remain on the scene.

(c) If no assistance is required the Fire Department will secure from the scene provided no hazard exists to the pier or base property.

(d) Naval vessels at the piers will dispatch military rescue and working/assistance parties, together with fire equipment and accessories, upon request from the Senior Fire Department Officer.

(e) In the event of a fire at the piers, onboard ships or deperming station, Fire dispatch will immediately notify the Service Craft dispatcher and Port Services Department. Port Services will promptly send tugs to assist in ship movements or fire fighting, when directed by the Senior Fire Department Officer. In the event the commanding officer of a ship is in doubt as to the necessity of the ship being moved from the vicinity of the fire, a decision will be made by the Installation Commander.

c. Fire Lanes on Piers

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(1) Fire lanes of at least 20 feet in width will be maintained down the center pathway, or as near center as practical, of piers for their entire length.

(2) The entire width of the pier for a minimum of 50 feet in length at both the head and foot of the pier will be designated a fire lane to accommodate turnaround space and provide a designated location to obtain overboard drafting for water supply for fire apparatus.

(3) Fire lanes will be painted or marked off in bright yellow as well as the area at the head and foot, which will be diagonally striped. Other contrasting colors may be used.

(4) The words "FIRE LANE - NO PARKING" will be marked at 300 foot intervals the entire length of the pier. Letters will be a minimum of 6" and painted yellow, white, or other contrasting color.

d. Fueling of Equipment on Piers

(1) The fueling or defueling of any type of mobile equipment on wooden piers or wharves is prohibited.

(2) Gasoline trucks are prohibited on wooden piers or wharves. Gasoline for refueling equipment on barges will be transported by hand in approved safety cans.

e. Dockside Fueling Operations

(1) Fire Protection

(a) Fueling operations will not be conducted at any pier by a vessel without prior inspection and approval from the Installation Fire Prevention Office. This approval will be in the form of a permit, issued by a Fire Prevention Inspector.

(b) The ship's fire hoses and other firefighting equipment will be connected and ready for immediate use during fuel transfer operations.

(c) A competent hose watch will be provided from ship's company for all fuel transfer operations. The hose watch will stand by at all times to raise or lower the hose, to watch for strains or chafing of the hose, to close the ship's valves or to signal to the pump man in the event of emergency, or upon receipt of signal from the wharf man.

(d) The BRAVO FLAG will fly during all fueling operations.

(2) Duties

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(a) An experienced supervisor will be in charge of dockside operations when any fuel transfers are started or stopped. The supervisor will be readily available in the event of an emergency. Ships and submarines being fueled by pipeline or fuel tanker truck will provide one person on the ship with headphones and one person on the pier (hose watch) with headphones for communications from ship to pier.

(b) Principal assistants (wharf man and hose watch), having a thorough understanding of established rules and regulations governing fuel transfer operations. Fuel transfer operations will halt until any unsafe condition has been corrected.

(c) At least one experienced and responsible wharf man, in addition to the hose watch, will remain on duty and present at dockside during the entire period of bulk cargo transfer. The hose watch will stand by at all times to close the wharf valve and order pumping or gravity transfer stopped on signal from the ship or in event that a spill or leak is observed. Spills or leaks will be cleaned up before fuel operations are resumed.

(3) Source of Ignition

(a) The smoking lamp will be out in a ship involved in gasoline handling operations, as well as in any other vessel within 200 feet of such ships. The smoking lamp will be put out prior to the start of operations and remain out until the commanding officer of the ship deems it safe to remove the restriction. However, in no case will smoking be permitted until 15 minutes after completion of the operations.

(b) All sources of ignitable gasoline vapors will be prohibited from an area of at least 200 feet of a ship engaged in gasoline transfer operations, including such sources aboard other vessels, and from such obvious sources of ignition as smoking, open flame and fires, other hazards including motor vehicles, power boats, locomotives, light, friction sparks, cranes, and mechanical devices. Under some conditions, the foregoing minimum conditions may have to be increased.

(c) Prior approval from a Fire Prevention Inspector will be obtained before transferring gasoline from barge to ship outboard.

(d) Streets or roadways leading to piers and wharves conducting gasoline transfers will be effectively barricaded at a minimum of 100 feet from the transfer area.

(e) Personnel engaged in loading or unloading gasoline or flammable liquids with flash points below 100 degrees Fahrenheit will not wear boots with exposed metal objects in soles or heels.

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(f) Only non-sparking tools will be permitted for use within the restricted area surrounding gasoline transfer operations.

(g) Only those electrical devices listed by Underwriters Laboratories (UL) for use in hazardous locations will be permitted in gasoline handling areas. Installation of temporary electrical devices will not be permitted in such areas.

(h) Transfer of any fuel is prohibited during electrical storms except under emergency circumstances, as determined by Fire Prevention Inspector.

(i) Permission to load or discharge gasoline, JP-5, kerosene, other highly flammable liquids, and waste oil or oily waste during the hours of darkness is granted only for reasons of operational necessity. Comply with the guidance in paragraph 3170.2 b of this manual to request permission.

(j) Energized radar will not be aimed in the direction of operations involving fuels or fuel handling, explosives, or transfers of ammunitions.

(4) Bonding

(a) Static bonding devices will be in place and secured between ship and pipeline, ship and barge, and ship and fuel truck before the fueling hose is connected and left in place until after such hose is disconnected.

(b) Before permitting a gasoline powered boat to fuel from shore, a proper bonding connection will be made. This connection will be made of wire or solid metal to ensure positive contacts are made.

(c) Bonding is required when the use of metallic hose is not practical, and a separate container is used to power gasoline into the boat tanks. Such containers will first be bonded with the boat tanks by a flexible conducting cable or wire.

f. Ships will not take on discharged bulk gasoline or aircraft fuels beyond 80% capacity in any one tank (except JP-5 for which 95% is permissible), while berthed at the piers, except in an emergency, and then only with the approval of the Installation Commander. When transferring bulk gasoline from ship to barge, or from barge to ship while at the piers, the barge will be on the outboard side of the ship. Gasoline spill (overflow) upon the surface of the water within 1,000 feet of any of the site specific piers will be reported immediately and in accordance with guidance in Section 5090.4 of this manual.

g. Fueling of ships boats at wooden piers is prohibited.

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h. NO FUELING is permitted at the same pier simultaneously with ammunition handling.

i. When any ship is loading or unloading aircraft in service condition containing fuel, it is prohibited for any ship at the pier to load or discharge ammunition or liquid oxygen.

j. The transfer of sludge, etc. to a donut or tank truck on the pier is considered a fueling operation. Where the availability of the pier connections permit the discharge of such residues directly into a pier or shore collection system, no restrictions on simultaneous discharge or ammunitions handling are required, other than exercise of prudence and common sense.

k. Liquid Oxygen

(1) Only qualified operating personnel with full cognizance and understanding of operating procedures will be permitted to handle charging and/or off-loading of liquid oxygen.

(2) Extreme care will be taken to prevent liquid oxygen from spilling or dripping upon asphalt, wood, oil-covered concrete, or any other combustible material. If spillage or dripping on the ground cannot be prevented by the charging unit or truck design, the equipment will be positioned over an unpainted metal tray. This tray will be large enough to catch all liquid that may spill.

(3) Charging units or trucks, which contain provisions for preventing such conditions, may be used with no special guidelines. The length and width of the tray will exceed the charging unit's comparable dimensions by 3 feet and have a depth of at least 10 inches. A ramp will be provided to catch any liquid, which may spill.

(a) Rope off an area within a 50 foot radius of the charging unit and the area through which the charging line passes and clear all vehicles, cranes, or other equipment which are not required during oxygen charging operations.

(b) All combustibles will be removed.

(c) "NO SMOKING" signs will be posted prominently around the perimeter of the roped off area.

(d) Provide suitable illumination for night charging operations for the entire charging area.

(e) Prohibit smoking, charging batteries, painting, fueling, and loading or off-loading of ammunition in the vicinity during charging operations.

1. Welding and burning operations are prohibited as follows:

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(1) Within 100 feet of any ship loading or discharging bulk gasoline, liquid oxygen, JP-5, kerosene, or grade heavy boiler fuel oil or other flammable liquids.

(2) Within 100 feet of the transfer of drummed gasoline, alcohol, JP-5, kerosene, or grade heavy boiler fuel or other flammable liquids.

(3) Within 100 feet of any ship loading or unloading aircraft in service condition containing fuel.

m. Fire protection responsibilities for decommissioning ships:

(1) During decommissioning, the ship's commanding officer retains sole responsibility for fire protection aboard the ship.

(2) Assistance from the Installation Fire Department during periods of ship decommissioning can, and will, be provided to supplement fire protection requirements. Ships, whenever possible are requested to schedule familiarization tours for shore based Fire Department personnel. However, the following minimum fire protection will be provided by the ship throughout her stay at the site-specific location.

(a) Sufficient damage control equipment to support the ship and tow ship requirements.

(b) Quarterdeck and sounding/security watches will be continuously maintained.

(c) Sufficient duty section fire party/response teams to provide initial fire fighting capabilities.

(d) Fire hoses will be rigged throughout the ship to be used during primary fire attack. Hook up lines will be available in all spaces.

(e) Emergency diesel fire pumps on the pier with hose lines attached to support ship functions.

(f) Sufficient portable CO2 fire extinguishers for Class "C" fires.

n. Aircraft Operations

(1) Flight Operations

(a) No flight operations will be conducted at any site-specific pier without specific authorization from the Installation Commander, through the local Port Operations Officer.

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(b) The installation Fire Department will be notified and the pier area will be inspected by a Fire Prevention Inspector prior to the start of any flight operation. The inspector for this operation will issue an authorization permit.

(c) The ship involved in the flight operation will have fire fighting equipment laid out and fire party personnel standing by. Hoses will be equipped to produce foam. The fire party will be equipped with all necessary forcible entry tools required for immediate rescue.

(d) All petroleum products handling at the berth involved and adjacent berths (across pier) will cease for the duration of flight operations. Fuel hoses need not be disconnected.

(e) Ordnance handling evolutions and flight operations will not be scheduled simultaneously.

(f) In no case will shipboard flight operations at the piers be authorized if the aircraft is carrying live ordnance.

(2) On/Off Loading Aircraft

(a) The Installation Fire Department will be notified and a Fire Prevention Inspector will inspect the pier area prior to the start of any aircraft on/off loading operations. The inspector for this operation will issue an authorization permit.

(b) If the aircraft to be on/off loaded contains fuel, ship's fire parties will be stationed on the flight deck and on the pier. Hose lines are not required to be charged, but should be equipped to flow foam if fire fighting operations are required.

o. Handling of Ammunitions

(1) The handling of ammunitions at piers and waterfront will be in accordance with site-specific regulations.

(2) Ships loading or unloading ammunition will have fire fighting equipment in complete readiness before commencing operations.

(3) Hot work will not be performed at or alongside an authorized ammunition handling location simultaneously with ammunition handling at the same berth unless such hot work is in a tender and confined to those spaces specifically designated in writing by the tender's commanding officer.

(4) Hot work at other berths of the same pier or slip may be performed subject to the following restrictions.

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(a) Hot work inside the skin of a ship (not exposed) may be performed at any berth other than the berth at which ammunition is being handled.

(b) Exposed hot work (that outside the skin of a ship) will not be performed within 500 feet of any ammunition handling.

(c) Fueling operations will be prohibited at the same pier simultaneously with ammunition handling for logistic support. The transfer of sludge, etc., to a tank truck on the pier or a "donut" alongside will be considered in the same category as a fueling operation.

(d) Gasoline or jet fuel, either in bulk or drums, oxygen, compressed flammable gases, or any other highly hazardous material will not be handled at the same pier or in the same ship, with ammunition handling.

(e) Smoking is prohibited when handling ammunition, except in locations onboard ship designated by the commanding officer.

(f) No lighters, matches, or flame producing devices will be carried on any person either engaged in, or in the vicinity of, ammunition handling operations.

(g) Ammunition handling will be secured during local atmospheric disturbances.

(h) Handling operations will not commence until the pier is cleared of any obstacle that could impede access of fire fighting or other emergency vehicles.

Pier vehicular traffic will be limited to fire, ambulance, and that equipment required to support the handling of ammunition.

11320.6 Firefighting Coordination - Fleet

a. General. The concept of ship nesting is to provide adequate shipboard fire fighting and damage control response while reducing overall military manning aboard ship. To accomplish this, shipboard fire fighting crews will be augmented and reinforced by shore based Fire Departments and Fire crews. Ship nesting is established when two or more ships are berthed in close proximity of one another and utilize shipboard fire/damage control teams to respond to any one of the nesting ships.

b. Shipboard. It will be the responsibility of each ship's commanding officer to maintain a minimum fire response team to immediately mitigate any fire on board ship. In addition, ship's personnel will be available to liaison with arriving shore based fire crews and provide the necessary tactical information to allow

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shipboard and shore based fire teams to work efficiently, effectively, and safely together.

c. Afloat Response Teams. Shipboard response teams shall be made up of personnel from all ships in the nesting group. One of the nesting ships will be responsible for the lead role in scheduling and rotating shipboard response teams. Proper coordination/scheduling of duty response teams to service and provide response to the entire nesting group will reduce manning while creating an effective response capability.

d. Afloat Response Team Training

(1) It is recommended that shipboard response personnel from all nesting ships participate in familiarization walk-throughs of all ships in the nesting group.

(2) Schedule training with other nesting ship crews while in port.

11320.7 Firefighting Coordination - Shore

a. Ashore based Fire Departments do not have the resources, manpower, or logistics to conduct multiple drills aboard every nesting group ship on a continuous basis. For this reason, shore-based fire crews shall conduct the following training when requested to support a nesting group.

(1) Participate in a familiarization walk-through of each ship in a nesting group.

(2) Participate in one drill per nesting group in coordination with afloat response teams.